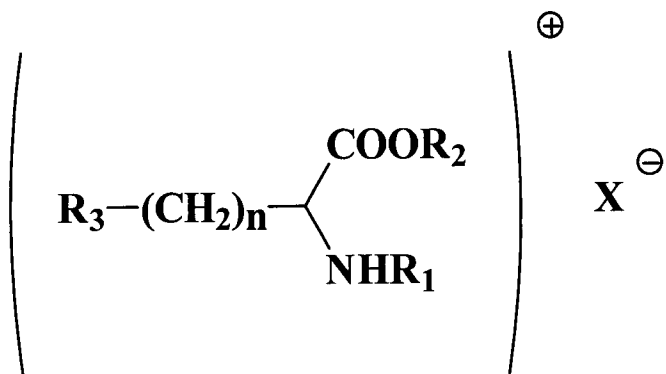


### Current Listing of Claims

1. (Currently amended) Process for preparing a N<sup>α</sup>-acyl-L-arginine ester, derived from fatty acids and esterified dibasic amino acids, according to the following formula:



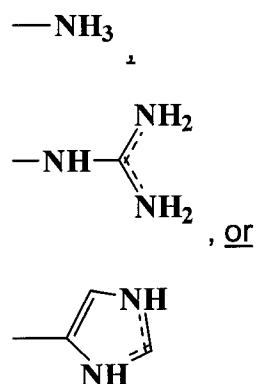
where:

X<sup>-</sup> is Br<sup>-</sup>, Cl<sup>-</sup>, or HSO<sub>4</sub><sup>-</sup>

R<sub>1</sub>: is a linear alkyl chain from a saturated fatty acid, or hydroxyacid, from 8 to 14 atoms of carbon bonded to the α-amino acid group through amidic bond;

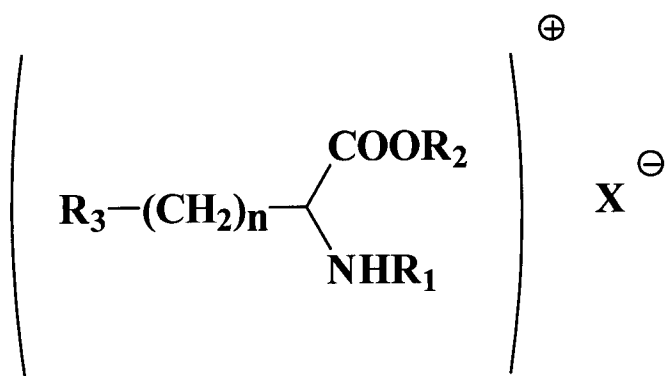
R<sub>2</sub>: is a linear or branched alkyl chain from 1 to 18 carbon atoms or aromatic;

R<sub>3</sub>: is:



where n can be from 0 to 4, from the starting reactants of appropriate organic acid and alcohol, catalyzed by a hydrolase in a low-water-content organic medium.

2. (Currently amended) The process as claimed in claim 1, wherein the starting reactants are an alcohol with linear or branched alkyl chain from 1 to 18 carbon atoms or aromatic; and a N<sup>α</sup>-acyl-L-arginine acid, as cationic salt or acid salt, according to the following formula:



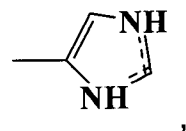
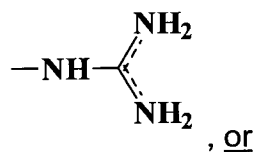
where:

X<sup>-</sup> is Br<sup>-</sup>, Cl<sup>-</sup>, or HSO<sub>4</sub><sup>-</sup>

R<sub>1</sub>: is a linear alkyl chain from an a saturated fatty acid, or hydroxyacid, from 8 to 14 atoms of carbon bonded to the α-amino acid group through amidic bond;

R<sub>2</sub>: is H or an organic or inorganic cation; and;

R<sub>3</sub>: is:



where n can be from 0 to 4.

3. (Currently amended) The process ~~ester~~ as claimed in Claim 1, wherein the N<sup>α</sup>-acyl-L-arginine ester is the ethyl ester of the laurylamide of L-arginine (LAE).

4. (Original) The process as claimed in Claim 2, wherein the starting N<sup>α</sup>-acyl-L-arginine acid is the N<sup>α</sup>-laurylamide of L-arginine.

5. (Currently amended) The process as claimed in ~~any of Claims 4 to 4~~ Claim 1, wherein said hydrolase is a protease.

6. (Original) The process as claimed in Claim 5, wherein said protease is papain from *Carica papaya*.

7. (Currently amended) The process as claimed in ~~any of Claims 4 to 6~~ Claim 1, wherein the enzyme is adsorbed onto a solid support ~~selected from the group consisting of~~ comprising at least one support chosen from polypropylenes, polyamides, diatomaceous earths, clays, zeolites, activated charcoals, carboxymethyl cellulose, cellulose esters and other substituted celluloses, ion exchange resins, insoluble polysaccharides, porous glass beads, aluminium oxide, celite, ~~and silica gels,~~ and mixtures thereof.

8. (Currently amended) The process as claimed in Claim 7, wherein ~~the~~ enzyme adsorption onto the solid substrate is carried out by lyophilisation or humectation of a mixture of the solid support and a dispersion of the ~~enzymatic catalyst~~ enzyme in the ~~an~~ appropriate buffer solution.

9. (Currently amended) The process as claimed in ~~any of Claims 4 to 8~~ Claim 1, wherein the low-water-content organic medium comprises at least

one reaction solvent is ~~selected from the group consisting of~~ chosen from sterically hindered alcohols, acetonitrile, cyclic ethers, chlorinated hydrocarbons, ketones, esters, ethers, aromatic hydrocarbons, aliphatic hydrocarbons and mixtures of ~~them~~ thereof.

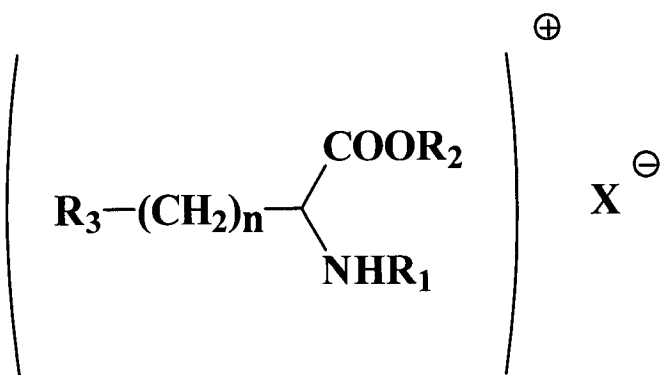
10. (Currently amended) The process as claimed in ~~any of Claims 1 to 9~~ Claim 1, wherein the reaction is performed at a water activity between ~~0,02~~ 0.02 and ~~0,1~~ 0.1.

11. (Currently amended) The process as claimed in ~~any of Claims 1 to 10~~ Claim 1, wherein the reaction is performed at a temperature between 20°C and 45°C.

12. (Currently amended) The process as claimed in ~~any of Claims 1 to 11~~ Claim 1, wherein the reaction is performed at a pH between 3 and 10.

13. (Currently amended) The process as claimed in ~~any of Claims 1 to 12~~ Claim 1, wherein ~~the~~ water generated in the reaction mixture is drained by a drying agent or a physical method, placed inside or outside of ~~the reaction vessel~~ a vessel in which the reaction is performed.

14. (New) Process for preparing a N<sup>α</sup>-acyl-L-arginine ester, derived from fatty acids and esterified dibasic amino acids, according to the following formula:



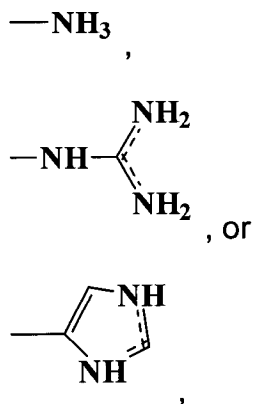
where:

X<sup>-</sup> is Br<sup>-</sup>, Cl<sup>-</sup>, or HSO<sub>4</sub><sup>-</sup>

R<sub>1</sub>: is a linear alkyl chain from a saturated fatty acid, or hydroxyl-acid, from 8 to 14 atoms of carbon bonded to the α-amino acid group through amidic bond;

R<sub>2</sub>: is a linear or branched alkyl chain from 1 to 18 carbon atoms or aromatic; and

R<sub>3</sub>: is:



where n can be from 0 to 4, from an appropriate organic acid and alcohol, catalyzed by a protease in a low-water-content organic medium, wherein the protease is adsorbed onto a solid support comprising at least one support chosen from polypropylenes, polyamides, diatomaceous earths, clays, zeolites, activated charcoals, carboxymethyl cellulose, cellulose esters and other substituted celluloses, ion exchange resins, insoluble polysaccharides, porous glass beads, aluminum oxide, celite, silica gels, and mixtures thereof.

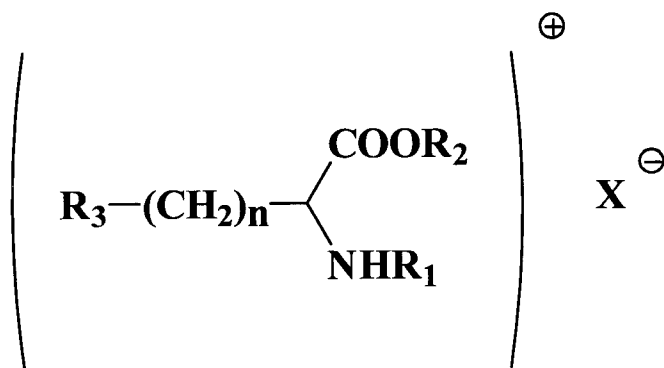
15. (New) The process as claimed in Claim 14, wherein enzyme adsorption onto the solid support is carried out by lyophilization or humectation of a mixture of the solid support and a dispersion of the enzyme in an appropriate buffer solution.

16. (New) The process as claimed in claim 14, wherein the low-water-content organic medium comprises at least one reaction solvent chosen from sterically hindered alcohols, acetonitrile, cyclic ethers, chlorinated hydrocarbons, ketones, esters, ethers, aromatic hydrocarbons, aliphatic hydrocarbons and mixtures thereof.

17. (New) The process as claim in Claim 14, wherein the N<sup>α</sup>-acyl-L-arginine ester is the ethyl ester of the laurylamide of L-arginine (LAE).

18. (New) The process as claimed in Claim 14, wherein said protease is papain from *Carica papaya*.

19. (New) Process for preparing a N<sup>α</sup>-acyl-L-arginine ester, derived from fatty acids and esterified dibasic amino acids, according to the following formula:



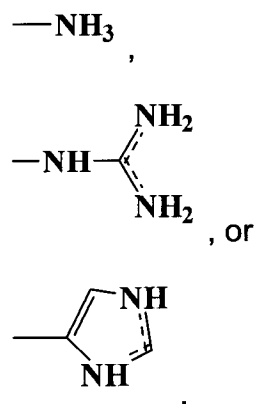
where:

$X^-$  is  $Br^-$ ,  $Cl^-$ , or  $HSO_4^-$

$R_1$ : is a linear alkyl chain from a saturated fatty acid, or hydroxy-acid, from 8 to 14 atoms of carbon bonded to the  $\alpha$ -amino acid group through amidic bond;

$R_2$ : is a linear or branched alkyl chain from 1 to 18 carbon atoms or aromatic; and

$R_3$ : is:



where n can be from 0 to 4, from an appropriate organic acid and alcohol, catalyzed by papain from *Carica papaya* in a low-water-content organic medium,

wherein the papain is adsorbed onto a solid support comprising at least one support chosen from polypropylenes, polyamides, diatomaceous earths, clays, zeolites, activated charcoals, carboxymethyl cellulose, cellulose esters and other substituted celluloses, ion exchange resins, insoluble polysaccharides, porous glass beads, aluminium oxide, celite, silica gels, and mixtures thereof, and

wherein the  $N^a$ -acyl-L-arginine ester is the ethyl ester of the laurylamide of L-arginine (LAE).

20. (New) The process as claimed in claim 19, wherein enzyme adsorption onto the solid support is carried out by lyophilization or humectation of a mixture of the solid support and a dispersion of the enzyme in an appropriate buffer solution.